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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/593,566	08/16/2000	Thomas J. Edsall	112025-0195	7888
24267	7590	05/18/2004	EXAMINER	
CESARI AND MCKENNA, LLP 88 BLACK FALCON AVENUE BOSTON, MA 02210			WILSON, ROBERT W	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 05/18/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/593,566

**Applicant(s)**

EDSALL ET AL.

**Examiner**

Robert W Wilson

**Art Unit**

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11, 14-20, 23-30, 33 and 34 is/are allowed.
- 6) ☒ Claim(s) 12, 13, 31, 32, 35 and 36 is/are rejected.
- 7) ☒ Claim(s) 21 and 22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>16</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2661

### DETAILED ACTION

**1.0** The application of Edsall et. al. entitled "MULTIPLE PACKET PATHS TO IMPROVE RELIABILITY IN AN IP NETWORK" filed on 8/16/2000 and amended on 4/6/2004 was examined. Claims 1-36 are pending.

#### *Claim Rejections - 35 USC § 112*

**2.0** The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 12-13, 31-32, and 35-36** are rejected because the metes and bounds of the claims cannot be assessed.

Regarding **Claim 12**, What is meant by a computer readable device dependent claim referring back to a method independent claim? It is not clear whether the applicant is claiming the method or the computer readable device or the instructions.

Regarding **Claim 13**, What is meant by a computer network carrying electromagnetic signals carrying instructions referring back to a method claim? Is the applicant claiming the instructions, signal, or computer network or system in the dependent claim which refers back to a method independent claim?

Regarding **Claim 31**, What is meant by "plurality of output ports for transmitting said packet over a plurality of packet paths to a single destination, each of said plurality of packet paths having a low cost ..., assigned to links that would connect each of said plurality of packet paths to each other" What is meant by the paths" also maintain a non-converging separateness"? Routes in a routing table can maintain a separate routing paths. The phrase "assigned to links that would connect each of said plurality of packet paths to each other" is a sentence fragment in the claim. What is meant by "assigned to links that would connect each of said plurality of packet paths to each other"?

Regarding **Claim 32**, What is meant by a "plurality of input ports for receiving a plurality of packets over a plurality of packet paths in a single destination ....assigned to links that would connect each of said plurality of packet paths to each other" What is meant by a "plurality of packet paths", "maintaining a non-converging separateness between each of said plurality of packet paths having a high cost in a LSP sense", "assigned to links that would connect each of said plurality of packet paths to each other"? Routes in a routing table can maintain a separate routing paths. "Packet paths" are the paths that the packets have traveled. The phrase "assigned to links that would connect each of said plurality of packet paths to each other" is a sentence

Art Unit: 2661

fragment in the claim. What is meant by “assigned to links that would connect each of said plurality of packet paths to each other”?

Regarding **Claim 35**, What is meant by a computer readable device dependent claim referring back to a method independent claim? It is not clear whether the applicant is claiming the method or the computer readable device or the instructions?

Regarding **Claim 36**, What is meant by a computer network carrying electromagnetic signals carrying instructions referring back to a method claim? Is the applicant claiming the instructions, signal, or computer network or system in the dependent claim which refers back to a method independent claim?

### ***Claim Rejections - 35 USC § 101***

**3.0** 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**4.0** **Claims 13 & 36** are rejected because these claims do not have utility.

Regarding **Claim 13 & 36**, An “electromagnetic signal” or “instructions” are not a process, machine or item of manufacture.

### **Claim Objections**

**5.0** Claims 21 & 22 are objected to because of the following informalities: They are duplicate claims. Appropriate correction is required.

### ***Allowable Subject Matter***

**6.0** The present invention is directed to a communication device which multicasts the same packet down two diverse routes. One of the routes is a high cost link state route and the second is a low cost link state route. Neither the high cost link state route nor the low cost link state route converge.

The closest prior art is Grossglauser (U.S. Patent No.; 6,353,596), Baumgarter (U.S. Patent No.; 5,138,614 t), and Cullen (U.S. Patent No.; 5,950,135). Grossglauser discloses a multicast network in which the network keeps track of least cost routes. Baumgarter discloses network conferencing network in which multimedia is multicast. Cullen discloses a method for multicasting signals over diverse plinks but does not teach keeping track of a high cost link state route nor keeping track of a low cost link state route.

Art Unit: 2661

The closest prior art either singularly or in combination does not anticipate or render the following claim limitations obvious:

“ a first plurality of subsequent routers connected to said first router along an .... ,said first plurality or routers connected to said second plurality of routers by links having assigned high costs in a Link State Packet Routing sense” as claimed in Claim 1.

“ said paths having a low costs,... separateness between different paths” as claimed in Claim 2.

“LSP does not select links that would create a convergence of said first and second desired paths” as claimed in Claim 5.

“LSP does not select links that would create a convergence of said first and second desired paths” as claimed in Claim 6.

“maintaining a non-converging separateness between said two or more packet paths” as claimed in Claim 15.

“(iv) assigning a ....maintaining a non-converging separateness between said two or more packet paths, and” as claimed in Claim 24.

“a processor ....maintaining a non-converging separateness between two or more packet paths” as claimed in Claim 30.

“means for assigning a high cost,....maintaining a non-converging separateness between said two or more packet paths” as claimed in Claim 33.

In Addition:

Claims 3 &4 are allowed because they depend on Claim 2.

Claim 14 is allowed because it depends upon Claim 5.

Claims 16-20 & 23 are allowed because they depend on claim 15.

Claims 25-29 are allowed because they depend upon Claim 24.

Claim 34 is allowed because it depends upon Claim 33.

Art Unit: 2661

***Response to Amendment***

7.0 Applicant's arguments with respect to claims 12-13, 21-22, 31-32, & 35-36 have been considered but are moot in view of the new ground(s) of rejection.

The applicant has added claims can be rejected relative to 112/2<sup>nd</sup> paragraph, added duplicate independent Claims, and has dependent claims which can be rejected relative to 112/2<sup>nd</sup> and 101. Please refer to the above rejection for details.

8.0 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


***Conclusion***

9.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 703/305-4102. The examiner can normally be reached on M-F (8:00-4:30).

Art Unit: 2661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Robert W Wilson  
Examiner  
Art Unit 2661

RWW  
May 10, 2004



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